

## REMARKS

In the Advisory Action dated May 1, 2007, the Examiner indicated that the response to the Final Office Action dated April 7, 2006, which was electronically filed on July 6, 2006, raised new issues that would require further search and consideration. In response, Applicants are filing a RCE and a Second Response to Final Office Action dated April 7, 2006. The Second Response to Final Office Action is filed in place of the Response to Final Office Action electronically filed on July 6, 2006.

Claims 35, 37, 38, and 42 have been withdrawn by the Examiner. Claims 36, 39-41, and 43 have been examined. The Examiner rejected claims 36, 39-40, and 43 as being unpatentable over lost count 2 on grounds of estoppel. The Examiner rejected claim 41 as being unpatentable over lost count 1 on grounds of estoppel.

### Claim Rejections

The Examiner rejected claims 36, 39-40, and 43 as being unpatentable over lost count 2 on grounds of estoppel. Additionally, the Examiner rejected claim 41 as being unpatentable over lost count 1 on grounds of estoppel. Applicants respectfully traverse these rejections.

Estoppel does not apply if the claims at issue are patentably distinct from the counts of the interference. Estoppel applies only if a losing party who could have properly moved but failed to move under sections 37 C.F.R. § 1.633 or 1.634 attempts to take an *ex parte* or *inter partes* action in the Patent and Trademark Office after the interference that is inconsistent with the party's failure to properly move. Further, according to MPEP 2131, to anticipate a claim, the reference must teach every element of the claim, and, according to MPEP 2143, to establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

In the present application, claims 39 and 40 include the limitation of a means for preventing the excitation of the filtering means by light of wavelength  $\lambda_p$ , wherein the means for preventing the excitation is disposed between the gain optical fiber and the filtering means, and wherein the means for preventing the excitation includes an optical fiber having a dopant that substantially attenuates light at wavelength  $\lambda_p$ . Claims 41 and 43 include the limitation of a means for preventing the excitation of the pumped gain ions by light of wavelength  $\lambda_p$ , wherein

the means for preventing the excitation is disposed between the gain optical fiber and the ion filtering means, and wherein the means for preventing the excitation includes an optical fiber having a dopant that substantially attenuates light at wavelength  $\lambda_p$ . Grasso does not teach or suggest these limitations. In the Office Action, the Examiner relies on the following paragraph for his rejection:

"It may be envisioned that filtering of the light emission constituting "the noise" at the end of the amplifier could be used, accepting therefore only the wavelength of the signal, which would require providing a suitable filter at the end of the active fiber. However, the presence of an undesired emission in the fiber in the range of the fiber maximum amplification would absorb pumping energy thereby making the fiber substantially inactive with respect to the communication signal amplification itself." (Grasso, col. 2, lines 43-53)

The passage in Grasso does not teach or suggest a means for preventing excitation that is disposed between a gain optical fiber and a filtering means and includes a dopant that substantially attenuates light at wavelength  $\lambda_p$ , as recited in the claims of the present invention.

Further, claim 36 includes the limitation that each pump light-attenuating fiber section includes a first and a second end, wherein the first end of each of the pump light-attenuating fiber sections is connected in series to a respective one of the second ends of the gain fiber sections. Grasso does not teach or suggest this limitation. Rather, Grasso merely teaches a double-core active optical fiber having an amplifying core and an attenuating core in a common cladding. There is no suggestion or disclosure in Grasso of a first light-attenuating fiber section and a second light-attenuating fiber section whose first end is connected in series to a respective one of the second ends of the gain fiber sections, as recited in the claims of the present invention.

For the reasons set forth above, Grasso fails to teach or disclose all the limitations of claims 36, 39-41, and 43. Applicants submit that claims 36, 39-41, and 43 properly avoid the subject matter of the lost counts and also are not anticipated or rendered obvious by Grasso. For these reasons, claims 36, 39-41, and 43 are in condition for allowance, and Applicants respectfully request allowance of the same.

***Conclusion***

Having addressed all issues set out in the office action, Applicants respectfully submit that the case is in condition for allowance. If the Examiner has any questions, please contact the Applicants' undersigned representative at the number provided below.

Respectfully submitted,



Walter C. Grollitsch  
Registration No. 48,678  
PATTERSON & SHERIDAN, L.L.P.  
3040 Post Oak Blvd. Suite 1500  
Houston, TX 77056  
Telephone: (713) 623-4844  
Facsimile: (713) 623-4846  
Attorney for Applicants